Abstract

A method and apparatus for assigning the data rate and/or power level to the mobile terminals without determining the highest theoretical system throughput, and without determining the highest weighted system throughput. An order is imposed on the terminals and the data rate and/or power covariance matrices are assigned such that the data rates of the terminals having a lower index in the order will not be decreased due to the presence of the terminals having a higher index in the order, and this is accomplished without changing the power covariance matrixes of the antennas involved in the communication with the lower index terminals. Thus, the assignment is made to the terminals based on the terminals requirements without regard to the interference introduced by the terminals with a higher index in the order since this interference will be compensated for by the compensation technique when the compensation technique process the terminals in accordance with the order. The invention reduces the amount of computation necessary to implement such compensation techniques on an ongoing, real-time basis in a real-world system.